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ABSTRACT

As one of a series of topic papers assessing federal laws and programs affecting persons with disabilities, this paper reviews the issue of transportation services. In the area of urban mass transit, four relevant pieces of legislation and public transportation accessibility regulations are cited, and cost issues are explored. Paratransit systems, fixed route bus systems, and rapid rail systems are described, leading to an examination of models of fully accessible, multi-modal transit systems. In addition to urban mass transit, other modes of transportation discussed include air travel, intercity and interstate buses, Amtrak, and private transportation. Principles of a national policy for accessible transportation are outlined, and recommendations for legislative amendments to develop a nationwide fully accessible transportation system conclude the paper. Twenty-four references are listed. (JDD)

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TOPIC PAPER E:

TRANSPORTATION

National Council on the Handicapped

February, 1986

EC 211762

ACKNOWLEDGMENT

This is one of a series of ten topic papers developed by the National Council on the Handicapped as part of its Special Report to the President and Congress: TOWARD INDEPENDENCE: An Assessment of Federal Laws and Programs Affecting Persons with Disabilities--With Legislative Recommendations. The members of the National Council on the Handicapped wish to expressly acknowledge with appreciation the special contribution made to this paper by Laura Rauscher.

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I. INTRODUCTION

The Urban Mass Transit Act, as amended in 1970, established transportation service for disabled people as a basic element of Federal transportation policy. The Act states that disabled people have the same right to use public transportation as nondisabled persons. Specific language that promotes the same principle is included in the Federal-Aid Highway Act of 1973. Since 1970, the nation has begun implementing accessible transportation systems in compliance with this policy. This paper assesses progress to date and recommends approaches to transportation accessibility which build on past experience.

Approximately 7.4 million persons are transportation-handicapped, according to Department of Transportation estimates. Transportation handicaps vary, ranging from individuals who have difficulty climbing stairs, reading signs, hearing announcements and understanding transit information to wheelchair users. In general, persons with transportation handicaps have lower incomes than other Americans, and are more dependent on public transportation to conduct the business of their daily lives. In fact, a major impediment to employment among people with disabilities is their inability to reach the job site due to the lack of available accessible transportation.

Regulations designed to implement legislative requirements for accessible urban transportation systems have changed several times during the past 15 years. They have ranged from minimal "special efforts" and "local options" to requirements for almost immediate full accessibility. Current regulatory efforts concentrate on setting performance criteria for services which can be designed in response to local conditions. These regulations

are not yet final, two years after they were due. However, a recent case in Federal court in Maine has resulted in a court order requiring Secretary Dole of the Department of Transportation to issue those regulations by December 13, 1985. The Council believes that persons with disabilities should have the same access to transportation and equivalent service levels as that available to the rest of the service population.

The Council has reviewed the implementation of the transportation policy of this nation. We find that in most parts of the country we are far short of achieving accessible, usable transit systems. A 1982 survey conducted by the General Accounting Office indicated that nearly three-fourths of the urban rail stations surveyed were almost totally inaccessible to wheel chair users. The same study determined that one-third of the transit systems offering fixed-route bus service did not have a single bus with a lift. A recent American Public Transit Association (APTA) fact sheet reported that 76% of the 49,000 buses in use in this country are not accessible. Air travelers who use wheel chairs face a multitude of problems, ranging from uncomfortable, dangerous, and dehumanizing boarding procedures to inaccessible restrooms and boarding areas. Intercity/interstate bus service, the primary mode of public transportation for many people in rural areas, is almost totally inaccessible to transportation-handicapped persons. Modified vehicles, the only reliable transportation available to many persons with disabilities, particularly in rural areas, are often prohibitively expensive for individuals and families with limited incomes.

Although the general picture currently appears bleak, the Council has identified cost-effective, working models of usable, accessible transportation systems. Seattle, Washington; Champaign-Urbana, Illinois; Dayton,

Ohio; Johnstown, Pennsylvania; and Palm Beach, Florida have successful, accessible public transit systems in place that meet the transportation needs of most of their citizens in a cost-effective manner. In addition, some interstate bus systems have attempted to develop accessible bus service, and some airlines, most notably, United Airlines, provide effective, courteous service for persons with travel disabilities. Amtrak has developed a model transition plan for accessibility that looks very promising.

The Council has concluded that accessible transportation is a critical component of a national policy that promotes the self-reliance and self-sufficiency of people with disabilities. People who cannot get to work or to the voting place cannot exercise their rights and obligations as citizens. Accessible transportation will become increasingly important in coming decades as our population grows older and experiences the increased transportation handicaps associated with an aging population. Providing only "special" van service and modified private vehicles is too expensive an option to meet the needs of this growing population, as is retrofitting tomorrow the mass transit systems being built or renovated today. The nation's experience with accessible transportation over the last 15 years suggests that cost-effective alternatives are available. The time has come to make our nation's policy of accessible transportation a reality in our communities.

II. URBAN MASS TRANSIT

In today's highly mobile society, transportation barriers continue to exclude many disabled persons from using most forms of public transportation. Such discrimination prevents many persons from realizing their full potential for independence and productivity. A National survey conducted by the Department of Transportation in 1978 estimated that there were "7.4 million transportation-handicapped persons in the urban United States, which represents 5% of the urban population" (DOT/UMTA, 1978, pg. 12). Section 16(c) of the Urban Mass Transportation Act of 1964, as amended, defines a person with a transportation handicap as:

> any individual who by reason of illness, injury, age, congenital malfunction, or other permanent or temporary incapacity or disability, is unable without special facilities or special planning or design to utilize mass transportation facilities as effectively as persons who are not so affected.

In this DOT/UMTA national survey, the urban transportation-handicapped population was separated into five categories:

1. Persons who use wheelchairs
2. Persons who use one or more mechanical aids such as braces, crutches, walkers, canes, or artificial limbs
3. Persons who have trouble seeing
4. Persons who have trouble hearing
5. Persons who have other problems such as difficulty in going up or down steps, stooping, kneeling, or traveling more than one block.

The survey estimated the following numbers of people in each group:

- 409,200 people, or 5.5% of the transportation-handicapped population, use wheelchairs.
- 1,938,600 people, or 26.1% of the transportation-handicapped population, use one or more mechanical aids or prosthetic devices.

- o 1,566,000 people, or 21.0% of the transportation-handicapped population, are visually impaired. This population includes 259,100 people (3.5%) who are blind.

- o 1,572,800 people (21.2%) are hearing impaired, including 371,700 who are deaf (5.0% of the transportation-handicapped population).

- o 3,502,300 people, or 47.1% of the tranportation-handicapped population experience other problems.

Of the 7.4 million persons who were identified as transportation-handicapped, only 1.1 million, or 15%, were employed at the time of the DOT survey. Of working age, transportation-disabled persons, just 23% were employed, as compared to 64% of the total working age population.

Employment opportunities can, however, be expanded through the increased availability of accessible public transportation. According to the Department of Transportation:

> ...the opportunity to get a job is a potential benefit of accessible transportation for a substantial number of handicapped people (DOT/UMTA, 1978, pg. 45).

The Governor's Transportation Task Force for Individuals with Disabilities in the State of Illinois recently conducted a study of the transportation needs of disabled and elderly persons in their State. The study shows that accessible transportation is essential for reaching education and employment goals:

> Almost 41% of the persons served by vocational rehabilitation agencies felt they needed transportation to and from work, and 22.3% indicated they would need transportation to attend the training and educational programs they needed to prepare themselves for work. In a survey of vocational rehabilitation service providers, 87% felt that the lack of affordable transportation was a major impediment to serving persons with severe disabilities and locating job placements for them. By the same token, transportation problems were the second-leading cause identified in a survey of severely disabled vocational rehabilitation clients who had not successfully completed their service plans (GTF Illinois, June 1985).

Investments in education and vocational rehabilitation offer a hollow promise if the end goals of independence and employment remain out of reach due to limited access to transportation.

A. Legislation

Since 1964, four major pieces of legislation have affected urban mass transportation for disabled people. They are:

1. Architectural Barriers Act of 1968
2. Federal-Aid Highway Act of 1973
3. Rehabilitation Act of 1973
4. Urban Mass Transit Act of 1964, as amended in 1970 by the Urban Mass Transit Assistance Act, and in 1984 by the Surface Transportation Assistance Act.

A brief synopsis of the provisions of these laws follows.

1. Architectural Barriers Act of 1968. The Architectural Barriers Act defines certain buildings, subject to the provisions of the law, which must be made accessible. It requires four Federal agencies, the General Services Administration, Housing and Urban Development, the Department of Defense, and the United States Postal Service to set standards to ensure that whenever possible physically handicapped people have ready access to and use of buildings which are designed, constructed or altered with certain Federal funds. The handicapped-access standards established by these four agencies are enforced by the Architectural and Transportation Barriers Compliance Board (ATBCB), which sets minimum guidelines and requirements or the parameters for the standards.

Since the Department of Transportation (DOT) is not a standard setting authority under this Act, the ATBCB has no authority to set minimum guidelines and requirements or to enforce transportation access standards that DOT may develop. Some facilities, such as certain bus terminals and train stations, are covered by the Architectural Barriers Act. The Act does not, however, cover the accessibility of vehicles, buses and trains associated with those transportation facilities.

2. Federal-Aid Highway Act of 1973. In 1973 the Federal-Aid Highway Act, Section 165(b), as amended by the Federal-Aid Highway Amendments of 1974, provided further clarification of what was required and implies a much stronger intent to have services accessible as part of all operations:

> The Secretary of Transportation shall require that projects receiving Federal financial assistance under (1) subsection (a) or (c) of section 142 of title 23, United States Code, (2) paragraph (4) of subsection (e) of section 103, title 23, United States Code, or (3) section 147 of the Federal-Aid Highway Act of 1973 shall be planned, designed, constructed, and operated to allow effective utilization by elderly or handicapped persons who, by reason of illness, age, congenital malfunction, or other permanent or temporary incapacity or disability, including those who are nonambulatory wheelchair-bound and those with semi-ambulatory capabilities, are unable without special facilities or special planning or design to utilize such facilities and services effectively. The Secretary shall not approve any program or project to which this section applies which does not comply with the provisions of this subsection requiring access to public mass transportation facilities, equipment, and services for elderly or handicapped persons. (Emphasis added.)

In addition to a declaration of national policy, the strong language underlined above was added by the 1974 amendment. As with the Urban Mass Transportation Act, judicial interpretation has found that the Federal-Aid Highway Act "does not require every standard size transit bus to be totally accessible to mobility handicapped persons" (U.H.F. v. Andre, 1976).

3. Section 504 of the Rehabilitation Act of 1973. Section 504 prohibits discrimination against a person on the basis of handicap. It says:

> "No otherwise qualified handicapped individual in the United States...shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive Agency or by the United States Postal Service..." (Section 504, Rehabilitation Act, 1973).

The language of Section 504, though it covers the provision of federally-assisted transportation, provides little guidance about what must actually be done. The language closely parallels civil rights legislation; in fact, it was originally introduced as legislation to include handicapped persons within the list of groups protected under Title VI of the Civil Rights Act. It has been interpreted by the courts as not only expressing substantive rights of disabled people, but also as conferring a private right of action to enforce the statute. Although like other Civil Rights legislation this law clearly prohibits discrimination, it has not been interpreted by the courts as providing a strong statutory basis for full accessibility in transportation.

Little congressional debate took place prior to the passage of Section 504. As a result, there is little legislative history to help us understand congressional intent with respect to Section 504's effect on transportation. Even so, its general prohibition against discrimination is important and far-reaching.

It has been suggested by several transportation experts that little discussion took place about transportation issues in Section 504 because Congress believed they had been explicit enough in the Federal Highway Act

of 1973 about their intent to provide equal transportation services for disabled persons. The ongoing regulatory change and court decisions since that time challenge that assumption intent.

4. Urban Mass Transit Act. The Urban Mass Transit Act of 1964, as amended by the Urban Mass Transit Assistance Act of 1970 and the Surface Transportation Assistance Act of 1982 (Section 16) states the following:

> "It is hereby declared to be the national policy that elderly and handicapped persons have the same right as other persons to utilize mass transportation facilities and services; that special efforts shall be made in the planning and design of mass transportation facilities and services so that the availability to elderly and handicapped persons of mass transportation which they can effectively utilize will be assured; and that all Federal programs offering assistance in the field of mass transportation (including the programs under this chapter) should contain provisions implementing this policy" (UMTA, 1970).

The powerful language in this Act declares a right to equal use of public transportation for disabled and elderly persons. It expresses congressional intent to assure that disabled people must be provided equal access to public mass transit. However, the statement of rights for disabled people in the Urban Mass Transportation Act is too ambiguous. In this statement of "national policy," a right is declared, but it lacks the underlying foundation necessary to render it enforceable. It contains no clear mandate.

Another part of this statutory section contains the most controversial term in the accessibility issue: "special efforts." The Act requires that "special efforts shall be made in the planning and design of mass transportation facilities and services so that the availability to elderly and handicapped persons of mass transportation which they can effectively utilize will be assured..."

This part of the Act weakens the statement of rights of handicapped and elderly persons because the only aspect of implementation which requires special efforts is in planning and design. It does not set a physical standard for compliance; it does not clarify whether the right conferred is actually exercisable. Judicial interpretations have found that this section creates no requirement for a fully accessible system.

The legislative history of the Act, on the other hand, tends to support the idea that the intent of Section 16 is to create full accessibility. The chief supporter of the amendment creating the present Section 16, Mario Biaggi, stated:

> "Heretofore handicapped Americans were relegated to separate and unequal transit systems--systems that were very costly not only to the Government, but also to the individual user. My 1970 amendment sought to require that design and construction of all new mass transit systems, equipment, and facilities be totally accessible to the elderly and handicapped" (Biaggi, 1974).

On January 6, 1983, President Reagan signed into law the Surface Transportation Assistance Act, which amends the Urban Mass Transit Act of 1964. Section 317 states:

> (c) Section 16 of the Urban Mass Transportation Act of 1964 is amended by adding at the end thereof the following:
>
> "(c) In carrying out subsection (a) of this section, section 165(b) of the Federal-Aid Highway Act of 1973 (consistent with any applicable Government-wide standards for the implementation of such section 504), the Secretary shall, not later than 90 days after the date of the enactment of this subsection, publish in the Federal Register for public comment, proposed regulations and, not later than 180 days after the date of such enactment, promulgate final regulations, establishing (1) minimum criteria for the provision of transportation services to handicapped and elderly individuals by recipients of Federal financial assistance under this Act or under any provision of law referred to in section 165(b) of the Federal-Aid Highway Act of 1973, and (2) procedures for the Secretary to monitor recipients' compliance

> with such criteria. Such regulations shall include provisions for ensuring that organizations and groups representing such individuals are given adequate notice of and opportunity to comment on the proposed activities of recipients for the purpose of achieving compliance with such regulations" (Congressional Record, 12/21/82).

This legislation required notice of proposed rule making by April 6, 1983. Proposed rules were finally issued in October of 1983. Final rules were due July 6, 1983. To date they have not been issued.

The next section explains in more detail the changing regulatory phases and indicates the need for strong legislative action that will explicitly clarify congressional intent to provide equal access and comparable service levels to people with disabilities.

B. Public Transportation Accessibility Regulations

Transportation services for disabled persons have been identified as a national goal since 1970 when the Urban Mass Transit Act of 1964 was amended to declare it to be national policy that disabled people have the same right to use public mass transportation as nondisabled persons. This Act began a period of uncertain and changeable regulatory policy in the area of transportation. Today, in 1986, some 16 years since its passage, transportation regulations are still not final.

Since 1970, there have been four phases of regulatory policy. They have been described in a recent study conducted by the Urban Institute as "Special Efforts," "Full Accessibility," "Local Option," and "Comparability" (Urban Institute, 1985, I-12, 13). A brief explanation of each of these phases follows.

"Special Efforts" began in 1968 with the enactment by Congress of the Architectural Barriers Act which set specific standards for making buildings financed with Federal funds accessible to disabled people. In 1970, the Urban Mass Transportation Act was amended, adding Section 16 to give disabled persons the same right as others to use public mass transportation. It also required transit authorities to make "special efforts" to provide effective service to disabled persons. Regulations clarifying the meaning of "special efforts" were not issued until six years later, on April 30, 1976. Special efforts were "clarified" at that time to mean "genuine, good faith progress" in the development of service for handicapped persons "that is reasonable by comparison with the service provided to the general public and that meets a significant fraction of the needs of these persons within a reasonable time period" (DOT, 1976).

It is generally accepted that these regulations were intended to be a first effort. Because few systems were doing anything, there was little on which to base conclusions. The perhaps well-intentioned concept of special efforts became both problematic and controversial. Regardless of what was intended, "special efforts" was translated around the country as doing little or nothing. Transit authorities were often unclear as to what constituted enough effort. Many transit authorities did nothing at all or made token efforts which did not adequately meet the needs of the disabled people in their communities. Because of their "special" status, these programs were often the first to be eliminated when cutbacks became necessary. "Special" meant "extra" and was therefore expendable. Cutbacks in services which were often inadequate to begin with left disabled citizens in some areas with little or no services.

The "Full Accessibility" phase begins with the promulgation of regulations implementing the Rehabilitation Act of 1973 by the Department of Health Education and Welfare (HEW). HEW was directed to coordinate the writing of similar regulations by all Federal agencies. In 1980, the Department of Justice (DOJ) assumed responsibility for this coordination.

In 1979, the Department of Transportation (DOT) issued its "full accessibility" regulations implementing the nondiscrimination provisions of Section 504 of the Rehabilitation Act for public transportation systems receiving Federal financial assistance. Due to varying cost projections (some very high) of achieving "full accessibility," the American Public Transit Association (APTA) mounted a legal challenge to the 504 regulations. This led to a finding in 1981 by the U.S. Court of Appeals for the Washington, D.C. Circuit Court that Section 504 did not provide an adequate basis for these regulations and remanded them back to the Secretary of Transportation to determine if other laws applied. DOT, however, rescinded and rewrote the regulations.

Full accessibility is the goal we all hope to achieve. However, the regulations developed to implement this concept prescribed design criteria and were perceived by transit authorities as too restrictive to allow local variations. However, it should be recognized that it was during this phase of regulations that most of the current advances in accessible transportation were made. Since these regulations were rescinded, much deterioration and little progress has taken place.

The "Local Option" phase started with the recision in July, 1981, of the full accessibility regulations. Interim "local option" regulations

were introduced outlining vague requirements that transit authorities make "special efforts" similar to those introduced in 1976. These regulations contained no mandate for accessible service to disabled persons.

"Local Option" is ineffective for many of the same reasons as "special efforts." Local option gave transit authorities the option to once again do nothing or nothing meaningful (Cannon & Rainbow, 1980b). With vague definitions of special efforts and no mandated levels of service provision, little has been accomplished.

In 1983, DOT issued new proposed final regulations which defined how services to disabled people should be "compared" with services provided to nondisabled persons. These regulations were intended to replace the local option interim rule and responded to a congressional requirement to establish minimum criteria for the provision of public transportation to disabled people.

According to the Urban Institute and other transportation experts, the burden of compliance with the regulations would be constrained by one of two proposed limits on the amount of money transit authorities are required to expend in meeting the minimum service requirements. One option would limit a transit authority's obligation in a given fiscal year to 7.1% of the annual average amount of the Federal financial assistance received for mass transportation purposes over the most recent three years. Another option would limit required expenditures to 3.0% of the average operating budget for the three proceding years. To determine whether they have reached the cost limit, transit authorities would include only the incremental costs of acquiring and operating accessible rolling stock and the costs of providing special services.

Such cost limits do not place a ceiling on the amount a transit authority may spend on services for disabled and elderly persons; the recipient can always choose to spend more. Nor do they constitute a minimum spending requirement. The cost limits place a constraint on the maximum obligation of a transit recipient in complying with the service requirements.

The proposed cost limits probably constitute the most controversial portion of the 1983 regulations. While the cost limits do not impose a mandatory ceiling on spending, local transit authorities cannot be compelled to spend additional funds once the limit is reached. Consequently, such cost limits could become ceilings on public transportation expenditures for disabled people. This would effectively undermine progress toward meeting established minimum service criteria. If minimum service criteria can be ignored for cost considerations, there is no way to guarantee a minimum level of service and the established service criteria may become insignificant.

The 1983 regulations set out a simple "self-certification" approach that depends solely upon self-reporting by local public transit agencies rather than affirmative monitoring by UMTA. From a legal perspective, self-certification does not seem to fully meet the requirements set forth by Section 317(c) of the Surface Transportation Act. It requires DOT to affirmatively monitor compliance of transit agencies with regulations prohibiting discrimination against disabled people. The General Accounting Office has found that in the past DOT's monitoring and enforcement activity has been extremely limited. According to the Urban Institute, some eleven years after the enactment of Section 504, the Federal Government has yet to initiate a single enforcement action for discrimination against disabled people in the

provision of public transportation. Thus the need for stronger monitoring and enforcement procedures is evident.

An issue parallel to the issue of monitoring and enforcement is the need for planning and evaluation. Establishing workable transition plans that outline specific access goals and timelines makes monitoring, evaluation and enforcement more feasible.

The planning implementation, and evaluation process must involve disabled and elderly consumers in substantive and meaningful ways. The National Council on the Handicapped has taken a strong position with regard to consumer involvement. Its national policy states that...."Disabled people should play leading roles in creating, making policy for, administering and directing public and private disability-related programs at the international, national, state, and local levels" (NCH, 1984). It must be established in legislation that consumers have a right to play leading roles in the development of transportation policy and programs in a significant and meaningful way that extends far beyond final commentary. The process should also include agencies involved in or affected by transportation services for disabled and elderly persons, such as the Architectural Transportation Barriers Compliance Board (ATBCB), the National Council on the Handicapped (NCH), and other advocacy organizations.

The concept of equivalent service is important because access without quality means little. Dennis Cannon has outlined and defined those areas which must be considered when determining whether services are comparable or equivalent. They are:

1) Equivalent Service Range. Contrary to many assumptions, disabled people are dispersed throughout the general population and their travel needs are not significantly different from those of the general population (3,6). Thus, service for disabled persons should extend throughout the general service area and operate during the same hours as the system used by the general public.

2) Equivalent Transfer Frequency. For trips of comparable length, handicapped passengers should not be required to transfer any more often than able-bodied passengers.

3) Equivalent Fare. Disabled passengers should be charged a fare no higher than that of the general public for trips of comparable length.

4) Equivalent Travel Purpose. Like able-bodied people, people with disabilities should not be restricted by trip purpose.

5) Equivalent Trip Decision/Travel Time.

   a) Trip Decision Time: Like the able-bodied users, the disabled user of public transit should need to decide to travel no longer in advance than the average headway (time between vehicles) plus travel time to the stop.

   b) Travel Time: Travel time varies according to the type of service (i.e., local or express).

   These two parameters are grouped since they balance each other. For example, an able-bodied user of transit may have access to a bus line with twenty minute headway and one hour (local travel) time. An alternative service for disabled people may require one hour advance notification and "express" travel to complete the trip in twenty minutes. Taken together, average trip decision time and travel time for a handicapped passenger should be equivalent, on the average, to that of the able-bodied passenger.

6) Equivalent Capacity. Able-bodied users of public transit may occasionally be confronted with a full vehicle but never a closed transit system. Many objections have been raised in the transit industry about accessible line-haul bus service with the question "What good is an accessible bus if the handicapped person can't get to the bus stop?" An equally valid question, however, is "What good is a door-to-door service when the handicapped person gets only as far as a waiting list?" In fact, the disabled person has some control, however slight, over the first situation (i.e., he or she may be able to get someone to help) but has no control over the latter. Actual numbers of people carried is important, of course, but so is potential ridership. Planning services with low saturation points does not solve the transit problems of handicapped people in the long run.

7) Equivalent Availability. To be served, able-bodied users of public transit need only present themselves, at the proper time and place, with the appropriate fare. Visitors to a city use the system without permission. Services for disabled passengers that require advance registration and/or certification by a physician or social service agency exclude a large group of the people they purport to serve. Transportation should never be restricted to members or clients of a particular organization or agency (Cannon, 1976, pg. 4-6).

It is important to note that each piece of legislation and each regulatory phase contains viable concepts which must not be lost. Today's challenge is to extract from each phase what has proven to be valuable and create legislation which embodies these concepts. Transportation legislation should clarify the need for nondiscriminatory transportation services for disabled persons, mandate full access to all new facilities and vehicles, and prescribe criteria for determining equivalence of services for disabled and elderly persons.

C. Paratransit

In many areas special transit systems, commonly known as paratransit systems, have been provided for individuals with disabilities. Paratransit service is generally door-to-door, demand-responsive transportation provided in small, lift-equipped vans. For the most part, transit authorities have used paratransit to attempt to comply with "special efforts" regulations. Its use as the sole mode of accessible transportation reflects the conception that services for disabled people are special and separate from those for the "general public." Transit authorities have commonly used the door-to-door nature of such services to say they are superior to fixed route access.

As currently practiced by the transit industry, "special efforts," now redefined as "local option," have resulted in the design of separate transit systems which provide low levels of service due to demand-limiting restrictions and are therefore highly discriminatory (Cannon & Rainbow, 1980b, pg. 19). These services are almost always restricted and segregated. Restrictions are necessary because such demand-responsive services are very expensive. Since total costs are directly proportional to the total number of trips provided, the number of trips must be limited to keep total costs down. By restricting the number of trips made, some transit authorities have created the impression that paratransit is cheaper than fixed route, accessible bus service. Paratransit appears cheaper only because it meets a small percentage of the actual need.

A General Accounting Office survey showed that many transit systems offer demand-responsive paratransit services to meet "special efforts" regulations. However, because of eligibility criteria and limited resources, 84% of the transit systems reported that they were regularly unable to comply with requests for transportation. One-third of the systems maintained waiting lists of persons needing transit services (GAO, 1982).

In Chicago, for example, the Chicago Transit Authorities (CTA) bus fleet has 2,275 regular buses. All are inaccessible to persons who cannot use steps. The CTA has a paratransit fleet of 42 small buses with lifts for wheelchair users.

The CTA spends over $4 million per year on this paratransit system, which averages about 500 trips per day. Recent actions to contract with an outside provider for these services is expected to increase capacity to provide daily service to 500 additional persons with disabilities, or 1,000

rides per day. This service falls far short of the need: on March 15, 1984, 5,551 persons were certified as eligible for the service, and the Illinois census showed the potential number of transportation-handicapped people in Chicago to be 110,294 (Governor's Task Force, 1985, pg. 10-13).

Ridership is restricted by requiring advanced reservations, individual certification of eligibility for service, establishing waiting lists, and placing restrictions on trip purpose, length and geographical destinations. At an American Public Transit (APTA) workshop in Houston, one transportation provider claimed to have no waiting lists. However, the dispatch office had only two telephone lines which were constantly busy, effectively causing those in need of service to become discouraged and give up (Cannon & Rainbow, Note 18, pg. 23).

Such restrictions deny equal transit services to individuals solely on the basis of handicap, which is prohibited by law. Nondisabled users of public transportation are not subjected to such restrictions. They need only present themselves with the correct fare at the proper place and time to receive service without question. Nevertheless, paratransit systems, with all their limitations and drawbacks, are sometimes the only sensible way to provide service to some disabled and elderly persons. Some specialized services must exist to meet the needs of disabled and elderly persons who cannot effectively use the bus or where the nature of the trip requires door-to-door transportation.

D. Fixed Route Bus Service

Fixed route, lift-equipped bus service provides integrated, accessible service for a large number of mobility impaired people. Appropriate signage

and auditory cues make this service more accessible to persons with hearing and visual impairments.

Mainline, accessible bus service has many benefits. Fixed-route access greatly expands the number of potential riders. It provides broader geographical coverage and hours of operation, and more flexibility, reliability and destination options than paratransit alone. This type of access promotes integration, which is essential if people with disabilities are to live independent, productive lives. Fixed-route access is cost-effective, eliminates many of the restrictions imposed by most paratransit systems, and meets a wide range of needs.

Unlike paratransit, as ridership increases on a fixed route, accessible system, the cost per ride goes down. The cost of access is divided by the number of rides taken using those features to obtain perride costs. Currently, the estimated cost of an accessibility package for one bus is not fixed. Estimates fluctuate depending on the size of the order placed by a transit authority and the bus manufacturer's desire to win the bid.

Congressional Budget Office (CBO) reports estimate the costs of each lift at an average of $10,000; the estimate used in a Texas study is $11,000. When challenged, DOT noted the estimated cost of lifts of two lift-equipped bus manufacturers: General Motors, $12,000 (advanced design bus (ADB)); Grumman Flexible, $10,000-$12,000 (in 1980 dollars); and Mitre Corporation, $9,000-$10,000 (in 1979 dollars) (TRB, 1981, pg. 44).

The TRB study also compared the cost of making a bus accessible at the time of purchase ($11,000-$17,000, 1980 dollars) to retrofitting ($20,000-$30,000, 1980 dollars) (TRB, 1981, pg. 44). Savings of about 50% are

realized by purchasing accessible buses. Experts estimate the cost of bus access to be about the same in 1985, but many anticipate that increased demand would result in significant price reductions in years to come.

Increased demand and usage should bring solutions to the technical problems transit systems have experienced with bus lifts. The St. Louis, Missouri Bi-State system is often cited as a good example of why bus lift technology does not work. It was the first to obtain wheelchair lifts, and those lifts were the first ones made for commercial use. Since that time, however, lifts have improved dramatically, and have been used with great success in Seattle, Washington; Dayton, Ohio; Champaign/Urbana, Illinois; Johnstown, Pennsylvania, and many other areas.

A strong commitment to preventive and ongoing maintenance is a significant factor in the successful use of lifts. St. Louis Bi-State, according to a National Transportation Journal, quoted in Full Mobility:

> may have been the worst choice for such a first order experiment because, in the words of its own director of engineering, John D. Booth, Bi-State is..."still 20-30 years behind in (its) maintenance program" (Cannon & Rainbow, 1980a, pg. 8).

It is important to note that several studies show that the major maintenance headache of transit operators across the country is actually with air conditioning. According to one study by the Transportation Research Board, air conditioning is more expensive to maintain than lifts. Yet few question the use of Federal funds for the purchase of air conditioning systems, each of which cost approximately $15,000. Air conditioners primarily increase comfort, while expenditures for lifts, which provide necessary access for disabled people, are carefully scrutinized.

VIA, the transit system serving San Antonio, Texas, reported that air-conditioning units alone in the new Advanced Design Buses (ADB's) increased

the annual maintenance costs by over 30%. St. Louis found that lifts increased maintenance costs about 5% or $0.01 per bus mile, and reported nonlift repair costs on the same vehicles of $0.10 per bus mile. St. Louis estimated that the Advanced Design Buses (ADB) increased repair costs not covered under warranty by 23%, and total repair costs by 33%.

Los Angeles reports that the maintenance costs per bus for air-conditioning exceeds its per bus costs for wheelchair lifts. Two small California systems reported that wheelchair lifts accounted for less than 5% of all repairs on their ADBs (although lifts account for 6-10% of bus purchase prices). Thus, although there are costs associated with lift maintenance, in general maintenance costs have not increased in proportion to the capital value of the lift (TRB, 1981, pg. 48). Lift maintenance costs must be viewed fairly in comparison with other maintenance costs.

E. Rapid Rail Systems

Accessible rapid rail systems serve persons with different disabilities in a cost effective way. The only substantial cost involved is for elevators; appropriate barrier-free design, for the most part, assures further accessibility without additional cost. An initially high, one-time investment in elevators, coupled with barrier-free design, brings benefits for many years to come. Improved elevator technology will further reduce costs.

Subway systems are made accessible by providing an accessible path from the street through to the platform and onto the train. Elevators frequently provide access from the street to the station and down to the trains. All train cars must be accessible in a way that is coordinated

with the station's platforms, i.e., the entrance should be level with the platform. Appropriate signage and auditory cues make the system more accessible to persons with vision and hearing impairments.

The cost of installing elevators in all rapid rail systems have been consistently over estimated. The "321" study conducted by DOT in 1979 of fixed rail accessibility in New York City estimated the cost of making 10 stations accessible as $32.5 million, primarily the cost of relocating sewage and utility lines for existing stations. However, the costs were greatly over estimated. Four years later, the renovation actually cost $9.6 million. Experts believe that an elevator technology commonly used in Europe would reduce the cost of elevators for rail stations by as much as 75%.

In addition, it is incorrect to label elevators solely as an "accessibility feature" of benefit only to disabled persons. In fact they are simply a part of good design since escalators have high accident rates. During an early, one day study conducted in Washington, D.C., Metro counted 64 people in wheel chairs who used elevators. However, 6,000 other people used the elevators for a variety of reasons, such as fear of height, tire easily, leg injury, etc. The variety of problems faced by persons using escalators warrant a viable alternative such as an elevator.

F. Fully Accessible, Multi-Modal Approach

Transit authorities regularly combine various modes of transportation to provide service to the general public. Since disabled people are a part of the general public, these various modes of transportation must be accessible and combined in ways which meet their transportation needs along with

those of nondisabled passengers. Fixed-route buses and rapid rail systems must be made fully accessible to provide service to disabled and elderly persons in a manner which promotes integration and independence.

In addition, paratransit service should be available for persons who may be unable to use these systems because of individual health problems or local environmental conditions, and in many rural communities where public transit is limited or nonexistent. Accessible fixed-route bus service and rapid rail systems will free paratransit services for those who need it most. Independent living and mobility training should be made available to assist disabled persons to increase their capacity to use all transportation systems more independently.

A multi-model approach can create a cost-effective transit system that is responsive to a wide range of accessibility requirements and locally identified needs. Fixed route buses with lifts, accessible rapid rail, and auxiliary paratransit door-to-door van service have been combined very successfully in some areas. Cities such as Seattle, Washington, and Champaign/Urbana, Illinois, among others, can be considered models for the development of accessible transportation services in other areas of the country.

1. Champaign/Urbana Mass Transit - Fixed Route Bus Service. Champaign/Urbana, a medium sized midwestern urban area, was chosen as a site for an Urban Mass Transportation Administration-sponsored Service and Methods Demonstration of fully accessible bus service. It has a large population of disabled individuals and a high level of sensitivity to their needs because it is the home of the University of Illinois' Rehabilitation Education

Center. The University of Illinois campus has been accessible for many years and has had an accessible bus service on campus since the early 1950's.

The Champaign/Urbana system has a fleet of 51 buses operated in a grid pattern. The service area is flat. The weather reaches extremes in both summer and winter, and the average winter snowfall is 22 inches.

Extensive planning for accessible service began in 1975, and involved consultation with the Rehabilitation Center and Urban Mass Transportation Administration. The Rehabilitation Center at the University of Illinois advised the Mass Transit District (MTD) that the travel needs of individuals with disabilities were no different from those of the general population; this led them to make all routes accessible rather than concentrating service on certain routes. By retrofitting 15 existing buses and purchasing another 25 new buses with lifts, initial accessibility was achieved. Retrofitting cost $23,00 per bus, while the lifts on the new buses cost only $15,000. An extensive curb cut program in these two cities has greatly added to the success of their transit system.

Before service began, MTD management met with and involved various disability groups. They developed a formal driver training program with assistance from the Rehabilitation Center. MTD's training program included classroom training and hands-on practice operating each type of vehicle. Instead of establishing specific policies on assisting passengers, MTD teaches the operator to be sensitive to each person's needs.

The first accessible buses began operation in 1980. At the end of 1980, one-third of the peak fleet was accessible and the average lift use

was 1.7 trips per day. By August, 1984, the fleet of 51 buses was totally accessible. Lift usage increased at that time and is currently used between 15 and 25 trips per day.

Champaign/Urbana also provides a subsidized taxi service for disabled and elderly persons who cannot use the fixed-route buses. MTD subsidizes 50% of the taxi fare. The taxi company operates one lift-equipped van in addition to its regular vehicles (Government Task Force, Urban Institute, 1984, pg. 30-31).

2. Seattle, Washington: Multi-modal Approach to Transit. A model of multi-modal approach is found in Seattle, where the necessary elements of an accessible system have been assembled in a programmatic and cost-effective manner. Seattle's Metro Council decided in 1978 that henceforth all vehicles would be equipped with lifts. This decision was made without reference to 504 regulations. It was a local decision that responded to the needs of the local disabled community and was followed by careful planning. However, this is clearly an exceptional case since it is fairly well known that the major advances toward accessible transportation services for disabled people occurred after "full access" regulations were in place.

A team of elderly and disabled persons, including wheelchair users and transit engineers, travelled around the country to investigate state-of-the-art lift technology. They decided on the Lift-U system, which is being used in other areas of the country with great success. After the system was selected, and several months before the first lift service began, the drivers' union was presented with the proposed policies. A drivers' task force was set up; they acted as a liaison between drivers and management

and between drivers and passengers. They identified potential problems and suggested changes to equipment and procedures. After a year, the task force was no longer needed and voted to disband.

After the accessibility decision was made in 1978, Metro inventoried all of its bus zones for needed accessibility improvements, such as curb cuts and culvert covers. They then negotiated with the responsible jurisdictions for street improvements. Along the pilot routes, Metro contracted for the improvements themselves; in some cases Metro matched the local funds for needed improvements. It will be many years before all bus stops are accessible; those that are currently accessible are marked with the international accessibility symbol.

Since 1980, the accessible fleet has climbed from 100 buses on 22 routes to 570 buses on 88 routes. The system is 53% accessible. In 1984, 88,572 one-way lift trips were made over 366 days, for an average of 242 trips per day. Seattle assumes that weekend travel is half of weekday travel, thus these figures imply an average weekday use of 280 one-way lift trips.

Performance of accessible service has not caused time delays; there is no significant difference between accessible and nonaccessible routes. Occasionally, an especially lengthy lift boarding may cause a delay, but the drivers are usually able to make up for such delays with little trouble.

Seattle Metro estimates that its start-up costs were $171,000. Currently their maintenance cost is $355 per bus per year. Operating costs per lift trip was $3.46 in 1984.

In addition to accessible fixed-route service, Metro operates a subsidized taxi program with a 50% subsidy through contracts with two nonprofit

agencies. The taxi program is aimed at low income people who are elderly or disabled; 65% of the users are over age 60 and 44.2% have disabilities. Forty-eight percent of the subsidized taxi registrants also use the bus system. In 1985, 7,000 subsidized trips per month were made by taxi. In 1982, Metro's subsidy cost per trip was $2.89, not including Metro's administrative cost. In 1982, Seattle Metro estimated the full cost to be $6.28 per taxi trip, including the passenger's fare.

Seattle Metro also initiated a van program to extend transportation for individuals with disabilities into suburban and rural areas where taxi service is too limited to make the subsidized taxi program viable. Trips are scheduled two to three days in advance. Two nonprofit van agencies provide trips to clients of other agencies as well as people eligible for the Metro Special Transportation Service Program (STSP). In 1983, they provided about 2,200 trips per month to STSP-eligible people, at an operating cost of $4.15 per trip. This cost does not include vehicle depreciation or Metro staff time for monitoring.

Seattle's Metro considers its multi-modal system to be cost-effective. The accessible fixed-route system is relatively inexpensive, allowing more expensive special services to be available to individuals who need that alternative.

Ron Tober, the Director of Transit in Seattle, gave the following explanation of Seattle's success in a recent speech to an APTA Convention (1985):

- Citizens - disabled or not - who knew what they wanted and were willing to support and help us, responded positively.
- Metro's agency-wide commitment - from top management to bus operators and mechanics and all those employees in-between.

Lip service and token efforts fool no one - especially front-line employees. Our management-by-objectives system has many elements relating to lift service. Our salaries are dependent on our meeting these objectives.

- The "political" or community support - from our own Metro Council to other agencies willing to fund curb cuts and improvements enhancing transit service.

- And finally, the decision to make lift service a normal, integral part of our system is probably the single most important key to our success. It is easier to run a system when you know all new buses, not some, will have lifts; when all new operators and mechanics get lift training; and when all information addresses the needs of handicapped peole as a matter of course. We expect success in lift operation as we do in other areas - we do not think of lift service as some special arrangement liable to failure.

- Good management and good planning principles - no different from other areas - have helped make accessible service work in Seattle.

An analysis made by Crain Associates cited these explanations of Seattle's success as the basic criteria necessary to make any transit system successfully accessible. Furthermore, they felt that these criteria could be duplicated anywhere in the country.

Factors such as technology, severe environmental conditions, and expense are common excuses for not making transit systems accessible. Yet many cities, including Seattle, Washington; Champaign/Urbana, Illinois; Dayton, Ohio; Johnstown, Pennsylvania; and Palm Beach, Florida have somehow "miraculously" overcome these "handicapping conditions" to provide successful, accessible transit services to the general public, including disabled and elderly persons in cost-effective ways. Clearly the efforts of these communities should be commended. We must move ahead with appropriate legislation requiring other transit authorities to follow Seattle and Champaign/Urbana's lead in developing multimodel approaches to meeting the transportation needs of transportation-handicapped persons.

G. Cost Issues

Although the cost of eliminating transportation barriers in urban mass transit is very real, the benefits to society may be great. The Congressional Budget Office estimates the potential cost of removing transportation barriers in federally-funded transit systems to be between $4.4 billion and $6.8 billion. These estimates vary according to which of three basic scenarios are being considered to meet the transportation needs of handicapped and elderly people. The first scenario, the transit plan, would cost $6.8 billion over the next 30 years. Of this amount, $2.2 billion would be spent on modifying, operating, and maintaining rail services. This $2.2 billion would also include the cost of providing door-to-door service in lieu of modifying stations and rail cars. The remaining $4.6 billion would be spent on modifying, purchasing, and maintaining transit buses. The second scenario, the taxi plan, would cost an estimated $4.4 billion over the next 30 years. This plan would entail a number of small modifications in existing rail and bus systems. The emphasis, however, would be on providing dial-a-ride vans for handicapped persons. The third scenario, the auto plan, would cost an estimated $6.4 billion over the next 30 years. This plan would provide dial-a-ride service, low-fare taxi services for severely handicapped persons unable to use transit, and financial assistance to purchase specially equipped vans for permanently handicapped people who use wheel chairs. The second and third scenarios would involve ongoing funding, while the first would impose primarily one-time modification costs spread over thirty years (CBO, 1982).

The accuracy of high cost estimates of accessible transportation has been the subject of much controversy. Cost estimates have been criticized

as underestimating potential handicapped ridership, overestimating capital and maintenance expenses, miscategorizing capital expenditure costs not included in computing per rider costs for nonhandicapped persons, and inappropriately comparing one-time expenditures with perpetually ongoing expenses of certain transit options. Congressional Budget Office estimates of transportation accessibility costs, for example, have been strongly challenged by the Department of Transportation and are the focus of a book written by Dennis Cannon and Francis Rainbow, two well known experts in this field. The book, "Full Mobility, Counting the Costs of the Alternatives" (Cannon & Rainbow, 1980a) provides an in depth critique of the CBO study, which was heavily dependent on DOT's "National Survey of Transportation of Handicapped People" (also called the Grey Advertising Study).

Cannon and Rainbow express concerns about the conclusions drawn from the data collected by the Grey Advertising Study. They state that "the statistical results of the Grey Advertising Study are not so much in question as are the conclusions derived from them." The conclusions drawn in the study result from a procedure intended to account for "non-commitant survey bias based primarily on assumptions and stereotypes rather than on reality" (Cannon & Rainbow, 1980a, pg. 2). Assumptions were made about the future mobility of disabled persons responding to the survey, based on their identification of barriers which inhibited them from currently using transportation. In fact, the identification of current barriers by disabled respondents eliminated them from being counted as a potential rider. This created the very low estimate of ridership upon which many of the cost figures were calculated.

DOT argued that CBO figures underestimate the numbers of potential handicapped passengers and overestimate maintenance costs, loss of seating capacity, and other expenses. DOT concluded that, based on more realistic figures, the accessible fixed route service is actually less expensive than other alternatives (DOT Congressional Record, June 20, 1980). The American Public Transit Association also expressed concern about attempts to establish national cost estimates, since their own recent attempts to collect cost information on accessible services did not produce credible, accurate, and meaningful cost estimates. Their efforts were confounded by the many factors that influence cost calculations, some of which vary widely. As a result, it is extremely difficult to calculate meaningful estimates.

B.J. Carroll of Seattle's Metro stated that one reason for the difficulty in determining costs of accessible transportation is that the kind and detail of cost analyses conducted in this area are not commonly done for other types of service. For example, when a new bus route is added to an outlying area, ridership at the beginning is low. It takes time for the public to learn about the service, determine if it meets their transportation needs and finally begin using it. The cost per ride per person to provide this service is generally not calculated. If it were, the cost per ride would be extremely high. When a new lift-equipped bus service is started for disabled persons, detailed cost analysis are undertaken to calculate costs per trip or per person. At the start up of new lift-equipped bus service, ridership is low. Thus, costs are high. As with other new bus services, there are start up and ongoing costs, but as ridership increases, costs are reduced.

When ridership is underestimated and related to fixed route-access, the cost per ride becomes inflated because as ridership goes down, costs go up. Thus, when ridership goes up, costs go down. Quite the opposite is true of paratransit. The lower the ridership estimate, the lower the cost of paratransit. As ridership goes up, costs go up because paratransit is labor intensive. Careful analysis of estimated ridership is needed, since the CBO study showed that paratransit is a less costly option. This may be due to low estimates of ridership on fixed-route access.

Whatever the actual costs of accessible transportation, it has clearly significant benefits. Beyond limiting handicapped people's ability to engage in the social, recreational, housing, and educational opportunities available to nonhandicapped people, transportation barriers have a serious negative effect on employment. Transportation is not just a transportation issue--it is an employment and education issue.

According to James Weisman of Eastern Paralyzed Veterans Association of New York, the PVA filed a suit recently against the City of New York for access to transportation. The issue was an attempt to gain access to the work force. In New York City, 80% of the population uses mass transit to get to work. Sixteen percent of the population nationally use public transportation to get to work. Many of these people cannot afford to get around any other way. Many disabled people cannot afford to purchase private vehicles. A quadraplegic purchasing a van needing modifications can expect to spend between $8,000 and $18,000 on modifications alone. A person needs to work for some time before being able to afford such an expensive piece of equipment. With no access to public transportation, they can't get to the job in the first place.

One commentator, Norton Reed, in a study reported in the Transportation Law Journal (1977), has estimated that 13% of unemployment among handicapped people is due to travel barriers and that 200,000 handicapped people would enter the work force if the barriers were eliminated, adding as much as $1 billion in annual earnings to the economy. If this were to happen, disabled people would have returned to society in less than seven years the entire cost of removing transportation barriers as estimated by the CBO.

The Department of Transportation has estimated that approximately $800 million in net benefits to society would result from eliminating transportation barriers. DOT has observed that savings in reductions of Supplemental Security Income costs by increased employment opportunities for handicapped people through accessible transportation would alone account for as much as $276 million annual savings for the Federal Treasury (DOT Regulations, June, 1980, pg. viii-12).

The Department of Transportation states that it is reviewing comments received on its 1983 proposed Section 504 regulations and intends to issue a final rule sometime soon. Significantly, DOT is conducting a cost analysis of the proposed regulations that will be available at the time the final rule is issued.

The bottom line about the cost of making transportation accessible to disabled persons is--no one really knows. National cost estimates remain difficult to calculate as the Department of Transportation and the American Public Transportation Association (APTA) have stated in recent conversations. What we do know is that cost estimates have been both overestimated and

underestimated. However, we cannot afford not to invest in accessible transportation. Each year that passes the cost increases and we find ourselves continuing to waste one of our country's greatest resources--disabled people.

III. AIR TRAVEL

The demand for access to air transportation has grown in recent years. Legislation requiring that facilities and buildings receiving Federal financial assistance be accessible has improved physical access to our nation's airports. As access continues to improve and personal and professional opportunities increase, disabled people will travel more. In our highly mobile society, access to the skies is important to a growing number of people.

Though much progress has been made to improve access and eliminate discrimination in the provision of air transportation to disabled people, many problems still exist, including inadequate equipment, untrained personnel, remaining problems with physical access to airports and planes, and outdated rules and regulations. It is not infrequent for disabled travelers to experience the following practical problems when traveling by air:

a) Mishandling, loss or damage to wheel chairs and/or other devices or equipment.

b) Boarding procedures and equipment which are uncomfortable, dangerous and dehumanizing.

c) Inaccessible boarding areas and restrooms in airports and on planes; long distances between terminals, gates and baggage claim areas; and ground transportation which is inaccessible.

d) Patronizing or disrespectful attitudes and treatment by personnel.

A lack of clarity exists regarding which Federal agencies are responsible for enforcement and for responding to and resolving discrimination complaints from disabled consumers.

A. Legislation

The main pieces of legislation related to air transportation are:

- o Architectural Barriers Act of 1968
- o Section 404 of the Federal Aviation Act
- o Section 504 of the Rehabilitation Act of 1973
- o Civil Aeronautics Board Sunset Act of 1982.

Each is briefly described below.

1. Architectural Barriers Act of 1968 covers buildings and facilities related to air transportation which are designed, constructed or altered with Federal funds. This has resulted in some improvements in access to our nation's airports. Unfortunately, many airport terminals are not built with Federal funds and are thus not subject to the provisions of this Act. Aircraft are not covered by this Act, meaning that access frequently ends at the jetway.

2. Section 404 of the Federal Aviation Act prohibited discrimination in very broad terms. It was repealed by the Civil Aeronautics Board Sunset Act of 1984. The remaining Section 404A provides for "safe and adequate service." This may be a vehicle for addressing the issue of non-discrimination.

3. Section 504 of the Rehabilitation Act of 1973 prohibits discrimination on the basis of handicap. A recent court decision determined that Section 504 covers all airlines using federally-assisted airports. This means that non-discrimination provisions under this Act require that airlines using federally-financed facilities provide accessible service.

4. Civil Aeronautics Board Sunset Act of 1982 eliminated the Civil Aeronautics Board and formally transferred much of their authority to the Department of Transportation. This was an effort to provide coherence and

coordination by eliminating overlapping authority. This Act also required the Department of Transportation to consult with the Architectural and Transportation Barriers Compliance Board (ATBCB) before changing policies or regulations affecting air transportation for disabled persons.

B. Current Issues

Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap, covers a few small air carriers which receive direct federally subsidies. These carriers provide only a small percentage of our nation's air transportation. Therefore, to achieve meaningful access to the skies, larger commercial aircraft must also be prohibited from discriminatory policies and practices.

Currently, the Department of Transportation's (DOT) authority over larger air carriers that are not directly federally subsidized but that use federally-assisted airports is uncertain. A Section 504 suit involving the Paralyzed Veterans Administration (PVA) and the Civil Aeronautics Board (CAB) examined the coverage of nonfederally-assisted airlines under Section 504 of the Rehabilitation Act of 1973. This case resulted in a decision which states that airlines using federally-assisted airports are covered by the non-discrimination provisions of Section 504 (PVA vs. CAB, 1985). The Justice Department is appealing this decision. The Supreme Court has recently agreed to hear the appeal.

Explicit legislative prohibitions are needed against discrimination on the basis of disability in air transportation. Regulations implementing the provisions of such a law should be based on sound knowledge and well-researched information about the needs of disabled people and the safety in

transporting them. Some aspects of current regulations seem to reflect inaccurate assumptions about the abilities and inabilities of disabled travelers. The Council believes that a significant research effort is needed to determine the most comfortable, safe and effective way to provide accessible air transportation for people with disabilities.

Equal access to air transportation requires the appropriate combination of tangible structural changes, appropriate signage, safe equipment and trained personnel. Equal access requires:

- o Structural modifications to make restrooms, airports, and aircraft accessible.
- o Increased and improved signage, including Braille.
- o Purchase of equipment such as Telephone Devices for the Deaf (TDD's) to facilitate communication.
- o Improved equipment such as boarding chairs and wheel chairs.
- o Training programs for personnel involved in transporting disabled passengers.

Such changes will probably require at least some Federal financial support.

Standards and minimum guidelines should be developed by the Department of Transportation (DOT) and the Architectural Transportation Barriers Compliance Board (ATBCB). Neither DOT nor ATBCB are authorized by the Architectural Barriers Act of 1968 to establish standards and guidelines for accessible air transportation. If such standards and guidelines were in place, air transportation system developed with or benefitting from Federal funds would in fact be required to offer accessible air transportation.

IV. INTERCITY, INTERSTATE BUS

Although many persons with disabilities live in rural areas, no recent transit study deals in a significant way with their transportation problems. Often the intercity bus transports nondisabled persons living outside major transit service areas to and from the major cities. Many rural residents rely on the bus to get to work and to reach the essential services and opportunities available only in the city. However, most intercity coach buses do not have lifts or other access features to make them usable by disabled people who use wheelchairs.

Bus companies like Greyhound, Trailways, and other similar carriers are under no Federal requirements not to discriminate against disabled people. They are not covered by Section 504 of the Rehabilitation Act because it does not cover interstate commerce. Because they receive no Federal financial assistance, laws governing recipients of funds from a Federal granting authority do not apply.

The American Bus Association does have an informal policy which allows disabled persons to travel with an attendant who rides free. The policy also allows for transporting guide dogs. Some companies--Peter Pan, for example--equipped buses with lifts but discontinued their use, apparently due to low ridership and technological problems related to the lift. The low ridership may have been due to a lack of outreach and advertising of their services.

Two companies, Eagle and Neoplan, have developed a lift which apparently remedies some of the technical problems of the lifts for coach buses. However, there is little incentive for these companies to purchase and operate these lift equipped buses since there is no legal requirement and the demand has been low, at least from their perspective.

V. AMTRAK

Amtrak is a federally-funded, intercity, interstate transportation system that provided transportation to over 19,983,000 people in 1984. The number of disabled people who ride Amtrak is unknown. According to the Department of Transportation, Amtrak's general ridership is down nationally, and substantial cutbacks are expected in the near future.

Amtrak is covered by Section 504 of the Rehabilitation Act, which prohibits nondiscrimination on the basis of handicap. In addition, Amtrak trains are required to have at least one car in which the food car is accessible. Amtrak's terminals are covered by the Architectural Barriers Act of 1968.

Amtrak is also covered by the Amtrak Improvement Act of 1974, as amended in 1976, which states:

> The Corporation is authorized to take all steps necessary to insure that no elderly or handicapped individual is denied intercity transportation on any passenger train operated by or on behalf of the Corporation, including but not limited to, acquiring special equipment and devices and conducting special training for employees; designing and acquiring new equipment and facilities and eliminating architectural and other barriers in existing equipment and facilities to comply with the highest standards for the design, construction, and alteration of property for the accommodation of elderly and handicapped individuals; and providing special assistance while boarding and alighting and in terminal areas to elderly and handicapped individuals.

This Act has been criticized for not actually mandating nondiscrimination. Regardless, Amtrak has undertaken the writing of a transition plan to achieve access to their facilities and trains. This transition plan is a massive four volume document outlining substantial plans for achieving access. Unfortunately, cutbacks in funding have significantly affected Amtrak's ability to move forward with the plan. Since expenditures for

capital improvements have virtually been eliminated, access has been difficult to achieve.

The National Council on the Handicapped commends Amtrak for its efforts and recommends that improvements in access continue as capital expenditures become more available.

VI. PRIVATE TRANSPORTATION

An accessible private vehicle is often an important key to independence for a person with a disability. People with disabilities make about 72% of their journeys by private auto. Many depend on others to drive them. While 16% of the daily journeys made by able-bodied persons are made as passengers in private cars, the corresponding share for persons with disabilities is twice as large--34% (DOT UMTA, 1978). Due to the continuing lack of adequate accessible public transportation, disabled people often must rely on private transportation. However, persons with disabilities are less likely to own a car and to be licensed to drive than nondisabled persons.

In many rural areas where there is little or no public transportation, a car or van may be the only way a disabled person can achieve some level of mobility. Since isolation is one of the most devastating and debilitating conditions which rural disabled people face, access to transportation can greatly increase their participation in a variety of community activities and enable them to seek employment. In a rural area even a short trip to the store for a carton of milk requires the use of a car. Without an adapted automobile or van, employment, which is usually available only in major activity centers many miles away, can be an impossible goal.

Many disabled persons in rural areas live with their families and are totally dependent on them for transportation and thus life support. This condition perpetuates isolation and places a heavy burden on the family. The problem is particularly severe when a severely disabled person who uses an electric wheelchair requires an accessible van with a lift.

The low income associated with disability in both rural and urban areas often prevents disabled individuals or their families from purchasing the type of vehicle needed and/or from making the modifications required to make a vehicle accessible. Disabled people's lack of adequate resources is documented in studies of the transporation-handicapped population. As a group, disabled people tend to be older than the general public and are more likely to be unemployed. They are likely to have low incomes; 34% of the households of persons with transportation handicaps have incomes less than $4,000. This is more than double the rate for the total urban population (DOT/UMTA, 1979). Thus, they need assistance with the purchase and modification of vehicles.

Modifications to private vehicles can be expensive. The current cost of hand controls installed in a car is about $400. Van modification costs are much higher, ranging from $2,000 for adaptions to enable a disabled person to be a passenger to from $5,000 to $18,000 for disabled drivers. Such costs are prohibitive for people on fixed or modest incomes.

Access to and the availability of driver training is another important issue. Most training schools do not have accessible vehicles with which to train disabled persons. Some schools that do offer accessible vehicles charge higher rates to their disabled customers to cover the costs of vehicle modification and instructor training. Some rehabilitation centers offer both driver evaluation and training, but frequently serve only clients of the State vocational rehabilitation department. Sometimes there is only one such facility available in a State. For example, in Massachusetts there is only one location where rehabilitation clients with severe disabilities can go for evaluation and training. This means that some persons

have to travel three hours or more to get to the rehabilitation center. This distance makes it impossible for most people to use this facility for driver training. Larger States have even greater problems in this respect.

Licensing of disabled people is also a concern. Laws vary from State to State as to who can and cannot drive. For instance, a person with epilepsy must be free of seizures for varying lengths of time, depending on the State. As a result, a person who can legally drive in one State may not be able to drive in a neighboring State.

State rehabilitation agencies have successfully provided driver evaluation, training, and vehicle modification programs for years. They should be encouraged and assisted to expand these services for disabled persons needing this assistance. Funding for these programs should be continued and increased where appropriate and needed.

The Council also recommends that accessible driver training be incorporated where appropriate into the public schools and designated in individual educational plans. This training should also be made available through adult and continuing education programs. Partnerships should be encouraged between the auto industry and driver training schools so that accessible vehicles can be obtained for training. Because driver training is often limited for disabled persons who require modified vehicles, such cooperation should greatly expand opportunities for driver training for disabled persons. The benefits would be especially great for disabled persons who are not clients of State vocational rehabilitation or who live far from rehabilitation facilities providing training and evaluation.

Currently, States vary in the standards and methods they use in determining ability to drive. Some of this may be discriminatory in nature.

Realistic criteria must be developed and should be applied equitably and commonly by all States. States with licensing practices which have proven effective and nondiscriminatory should be used as models by other States for developing standards for assessing driving ability.

An additional problem is that of defining a disabled person for the purpose of issuing a special license plate or placard to allow parking in spaces designated for disabled persons. Some clarification is needed to insure equal treatment from State to State. Disabled plates or placards should be valid for use in any State. For example, "disabled" plates from Arizona should be honored in California and in every other State. The Paralyzed Veterans of America have developed model regulations for the parking and licensing of motor vehicles used by handicapped persons. These model regulations should be considered, with modification as appropriate, for incorporation into Federal and State legislation addressing these problems.

VII. NATIONAL POLICY PRINCIPLES FOR ACCESSIBLE TRANSPORTATION

Our national policy for meeting the transportation needs of disabled persons must have as its foundation the following principles:

1. The needs of disabled and elderly people should be considered within the range of needs of the general public.

2. Affirmative efforts must be made to alleviate institutionalized discrimination in transportation. Discrimination in public transportation, whether intentional or unintentional, is intolerable in our highly mobile society.

3. Integration of disabled and elderly persons into the mainstream of society is of the utmost importance to maximize the potential for independence and productivity. Thus, segregation based on anything other than individual need is unacceptable.

4. The individual needs of disabled and elderly people vary with the severity of disability and/or environmental circumstances. Thus, transit options must be available which respond to a wide range of needs.

5. Eventually full access to public transportation must be achieved. Thus, all new facilities and vehicles must be accessible. Retrofitting and renovation should be done to make existing facilities and vehicles accessible and usable where new construction or purchase of vehicles is not imminent.

6. Disabled and elderly persons have a right to the same level and quality of service as is provided to nondisabled persons, including:

   Service Range
   Transfer Frequency
   Fare
   Travel Purpose
   Trip Decision/Travel Time
   Capacity
   Availability

7. Disabled and elderly consumers must be actively involved in substantial and meaningful ways in the planning, development and evaluation of transportation policies and programs.

8. Investing in accessible transportation is a cost-effective way to maximize the benefits of investments made in other areas such as education, rehabilitation and employment.

VIII. RECOMMENDATIONS

A refusal to invest in public transportation is a refusal to face the realities of the future. This year alone 250,000-300,000 young adults will graduate from special education. Many of those students will seek employment and additional educational experiences. If transportation is unavailable to them, money invested in their education is for the most part wasted. Disabled people who are educated will not settle for idle and unproductive lives. We can anticipate that their independence will be far greater than that of many disabled adults today, some of whom have had little opportunity for education or have grown up in isolated and segregated surroundings. More and more disabled students are graduating from college each year. They have the right and obligation to become employed when they finish school. Society cannot afford to waste this valuable resource because of the absence of accessible transportation.

In 1984 a disability policy statement was developed by the National Council on the Handicapped and approved by the President. It calls for full integration, improved access, and increased opportunity for disabled people. In accordance with this policy, the National Council believes that the recommendations that follow should be established in the area of transportation.

The following recommendations are made by the Council as a first step in the development over time of fully accessible transportation systems nationwide.

Urban Mass Transit

1. Congress should amend Section 16 of the Urban Mass Transit Act to require full accessibility to mass transportation to be achieved over a realistic period of time: Such amendments should:

   a. Prohibit discrimination on the basis of disability by recipients of Federal funds under this Act.

   b. Require recipients to provide a level of service to disabled and elderly persons that is equivalent with that available to nondisabled persons in terms of: 1) service range, 2) transfer frequency, 3) fare, 4) travel purpose, 5) trip decision/travel time, 6) capacity, and 7) availability.

   c. Require that all new facilities and vehicles constructed or purchased with funds under this Act be accessible.

   d. Require recipients of funds under this Act to develop specific transition plans for achieving, within a reasonable period of time, full access and comparable service levels. These plans should be developed with the substantial and meaningful involvement of disabled and elderly consumers.

   e. Create a private right of action for persons who believe they have been discriminated against by recipients under this Act.

Full access to transportation can only be accomplished by combining various modes of accessible transportation, including fixed route buses, specialized services, and rapid rail systems. Such a system can provide to disabled and elderly persons reliable transportation services that are tailored to local conditions, accessible, and equivalent in the quality and level of service to that provided to other citizens. All new facilities and vehicles should be required to be accessible. By making facilities and vehicles accessible at the time of construction or purchase, unnecessary, expensive retrofitting and renovation can be avoided. Disabled and elderly consumers must be involved in substantial and meaninful ways throughout the process of planning, implementing, and evaluating transit systems.

The Council also believes that persons who feel that they have been discriminated against in the provision of transportation should have individual and collective recourse for resolution of their rights through the courts. The potential for court action would also provide a clear incentive to transit authorities to act in nondiscriminatory ways so as to avoid sanctions which might be imposed by a court of law.

2. Congress should amend the Architectural Barriers Act of 1968 to establish the Department of Transportation as a standard-setting agency for the development of access standards for buildings, facilities, and public conveyances, including rolling stock and aircraft, which are designed, altered, constructed or purchased with Federal funds to insure that they are readily accessible and usable by disabled and elderly persons.

The Department of Transportation (DOT) currently sets transportation standards governing such matters as configurations of vehicles, communication access, appropriate signage, and safety. This recommendation will clearly establish DOT as the standard-setting agency for accessible transportation under the Architectural Barriers Act. The required standards would set forth specific requirements to guide transit authorities in designing accessible transit systems and evaluating their effectiveness.

Section 502(B) of the Rehabilitation Act of 1973 directs the Architectural and Transportation Barriers Board (ATBCB) to set minimum guidelines and requirements for standards developed by the standard-setting agencies under the Architectural Barriers Act. The combination of setting standards and establishing minimum guidelines and requirements will provide greater assurance to disabled and elderly persons that transportation systems developed with Federal funds will in fact have access features which make them usable in a meaningful way.

It should be noted that certain technical changes to the initial text of the Architectural Barriers Act would be needed to accommodate the addition of DOT. Thus, coverage of "public conveyances" and things which are "purchased" with Federal funds should be added.

Air Transportation

3. Congress should amend the Federal Aviation Act to:

   a. Prohibit discrimination on the basis of disability by all airlines using federally-assisted airports.

   b. State that airlines using federally-assisted airports are subject to the provisions of Section 504 of the Rehabilitation Act of 1973 and regulations promulgated thereunder.

Currently only a few small air carriers are directly federally subsidized and thus covered by nondiscrimination provisions under Section 504 of the Rehabilitation Act of 1973. These air carriers provide only a small percentage of this nation's air transportation. To assure accessible air transportation for America's disabled and elderly citizens, Congress should require that all airlines using federally-assisted airports be prohibited from discriminatory practices and subject to regulations promulgated under Section 504. Airlines should also be required to review and eliminate current practices and policies which have resulted in discriminatory, ineffective, and often dangerous service to disabled and elderly persons. Recommendation 2 above, requiring the Department of Transportation and the Architectural and Transportation Barriers Compliance Board to set standards and minimum guidelines for access, covers the provision of air transportation. This will insure accessible airports and aircraft.

4. Congress should extend coverage of handicap nondiscrimination requirements to interstate commerce, thus prohibiting such discrimination by intercity and interstate bus companies.

Intercity and interstate bus transportation is often the only form of public transportation connecting people in rural areas with major cities and towns. By prohibiting discrimination and improving access to this type of transportation, many more people would be able to take advantage of the many educational, recreational and employment opportunities found only in the city. (For further discussion of nondiscrimination provisions, see the paper on "Equal Opportunity Laws.")

Private Transportation

5. Congress should establish a low-interest loan program based on income to assist disabled persons and families with disabled children or elderly persons to purchase vehicles or to make necessary access modifications.

Private transportation provides the only means by which many disabled and elderly persons can become employed and participate in educational and recreational programs. In rural areas, private transportation is frequently the only transportation option. Since the cost of purchasing and modifying vehicles is prohibitive for many disabled persons and their families, such a low-interest loan program is needed to supplement the other transportation options outlined above. Federal funding for such a program should be provided up to a reasonable cap amount as established by Congress.

6. Congress should direct the Department of Transportation to commission a study, based upon its existing authorities and targeting currently available funds, to assess the impact of increased access to transportation on employment, education, and quality of life for disabled and elderly persons.

Little current data is available to document the potentially great benefits resulting from accessible transportation. Older studies suggest many benefits, both economically and in terms of life equality, that are associated with access to transportation. The study called for in this recommendation would provide more up-to-date documentation of such individual and societal benefits.

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